

## Pierce College Biotechnology Advisory Committee

### Meeting Agenda

**Date:** Wednesday, Jan 20, 2021

**Time:** 5:00 – 6:30 pm

**Meeting URL:** <https://laccd.zoom.us/j/99391914608>

- I. Members Introduction – attendance check
- II. Call to order – **5:13 pm**
- III. Presentation (**20 min**): Biotech Program at Pierce College (*Presenter:* Aron Kamajaya)
- IV. Approval of the Biotech Program Associate Degree and Certificates:
  - a. Biotechnology (General) Lab Assistant Certificate of Achievement (16 units)
  - b. Agriculture Biotechnology Certificate of Achievement (23 units)
  - c. Agriculture Biotechnology – Associate Degree in Science (29 units)

#### Discussion on certificate:

- **Jim Dekloe, Savannah St. Clair, and Chander Arora:** The term “lab assistant” is generally reserved for lower level certificate (buffer prep & media prep), whereas “lab technician” program indicates higher level skills (molecular biology, cell culture, chromatography).
- **Jim Dekloe, Bruce Nash:** possible direction – Algae Biotechnology (bioreactor)
- **Jim Dekloe, Rachael Harper:** Mandatory internship will require a lot of work from the faculty coordinator – placement & documentation. Suggestion – build an even lower unit certificate without requiring industry internship that is stackable with the higher level certificates (requiring internship)
- **Bruce Nash:** raised a question of the relevance of certificates to measure the success of a program
- **Bob Goldberg:** experience working in a real laboratory is essential for student’s professional development. Many labs at UCLA, including his laboratory, may be willing to accept trained interns during summer.

- **Saidhbhe O’Riordan:** Many Biotech companies will not hire without prior experience, emphasizing the importance of the mandatory internship.
- **Faten Shawwa:** requested adding “Good Manufacturing Practices (GMP) and data integrity ALCOA plus training.
- **Paul Webster:** raised a question on the availability of industry internship

**Approval:**

- a. Biotechnology (General) Lab Assistant Certificate of Achievement (16 units)  
**Motion: Teri Quenzer**  
**Second: Shelley Thai**  
**Unanimously approved with 1 abstention**
- b. Agriculture Biotechnology Certificate of Achievement (23 units)  
**Motion: Chander Arora**  
**Second: Rachael Harper**  
**Unanimously approved with 2 abstentions**
- c. Agriculture Biotechnology – Associate Degree in Science (29 units)  
**Motion: Wendie Johnston**  
**Second: Rachael Harper**  
**Unanimously approved with 1 abstention**

V. Additional Update

VI. Brainstorming Session/ Focus Group (**30 min**):

- a. Focus 1: High School Partnership
- b. Focus 2: Inter-Colleges Collaboration
- c. Focus 3: Industry Partnership

VII. Adjournment – **6:45 pm**

List of attendee and summary of the focus group discussion are attached below.

**List of Attendee – Biotech Advisory Board Meeting, Jan 20, 2021**

| No | Name                 | Affiliation                            | Position                                  |                            |
|----|----------------------|--|---|----------------------------|
| 1  | Aron Kamajaya        | LA Pierce College                      | Faculty - Life Science                    | Pierce College             |
| 2  | Savanah St. Clair    | LA Pierce College                      | Department Chair (Agriculture)            |                            |
| 3  | Mon Khat             | LA Pierce College                      | CTE Dean                                  |                            |
| 4  | Mary-Anne Gavarra    | LA Pierce College                      | Dean Academic Affairs                     |                            |
| 5  | Tess Scavuzzo-Duggan | LA Pierce College                      | Adjunct - Plant Biologist                 |                            |
| 6  | Shannon DeVaney      | LA Pierce College                      | Department Chair (Life Science)           |                            |
| 7  | Gracejeet Sroya      | LA Pierce College                      | Faculty - Life Science                    |                            |
| 8  | Chander Arora        | LA Mission College                     | Biotech Director                          | Local Biotech Program (CC) |
| 9  | Pamela Eversole-Cire | Pasadena City College                  | Biotech Director                          |                            |
| 10 | Rachael Harper       | LA Trade Tech College                  | Biotech Faculty                           |                            |
| 11 | Michelle Stieber     | Cerritos College                       | Biotech Faculty                           |                            |
| 12 | Karla Zeron          | LA Valley College                      | Biotech Faculty                           |                            |
| 13 | Hovik Gasparyan      | Moorpark College                       | Biotech Faculty                           |                            |
| 14 | Eleanor Tsark        | Citrus College                         | Biotech Director                          |                            |
| 15 | Katherine Marsh      | Compton College                        | Biotech Faculty                           |                            |
| 16 | Shelley Thai         | Glendale City College                  | Biotech Faculty                           |                            |
| 17 | James DeKloe         | Solano College                         | Biotech Director - 4 yr Biomanufacturing  | Biotech-others             |
| 18 | Wendie Johnston      | PBC (representing LAOCRC)              | Lab Director                              |                            |
| 19 | Terri Quenzer        | California Community College           | Statewide Director, Life Sciences/Biotech |                            |
| 20 | Mahsa Khatibeghdami  | Amgen Biotech Experience - Greater LA  | Regional Director                         |                            |
| 21 | Jeff von Kaenel      | News & Review                          | President & CEO                           |                            |
| 22 | Wendy Wooten         | Reseda Charter High School             | Faculty                                   | High School                |
| 23 | Brian Boyle          | LAUSD                                  | Linked Learning Program Coordinator       |                            |
| 24 | Karen Perkins        | Palisade HS                            | Faculty                                   |                            |
| 25 | Richard Prieto       | LAUSD                                  | Work-based Learning Program Coordinator   |                            |
| 26 | Sarahi Franco        | LAUSD                                  | Work-based Learning Program Coordinator   |                            |
| 27 | Bob Goldberg         | UCLA                                   | Faculty & HHMI Professor                  | 4-yr acad                  |
| 28 | Bruce Nash           | DNA-LC CSHL (representing InnovATEBIO) | Assistant Director for Science            |                            |
| 29 | Troy Walton          | Beyond Meat                            | Vice President of Plant Protein Research  | Industry                   |
| 30 | Paul Webster         | Oak Crest Institute of Science         | Senior Scientist                          |                            |
| 31 | Nathan Zuzow         | Thermo Fisher                          | Technical Application Scientist           |                            |
| 32 | Cory Tobin           | Mozzanova                              | CSO                                       |                            |
| 33 | Saidhbhe O'Riordan   | Grifols                                | Principal Sc - QC dev & validation        |                            |
| 34 | Faten Shawwa         | Integrity Bio                          | Director of Quality Operation             |                            |
| 35 | Amanda Mock          | A2 Biotherapeutics                     | Scientist                                 |                            |

### **Focus Group #1 – High School Partners**

#### **How can the Pierce Biotech program fulfill the needs of your institution?**

- Targeted outreach
  - Target schools with Biotech or Agriculture pathway
  - Carving out days where HS teachers can meet with Biotech teachers and work together
  - Regular engagement events – guest speaker, career exploration, science talk, field trips
- Dual enrollment opportunities to biotech courses that will lead to an internship
- Administrative
  - Dedicated counselors or any point communication person
  - Suitable time → *require further discussion*

#### **Is there something that you wish we can do to make it easier for high school students to enroll in our courses and obtain college-level Biotech certificates?**

- Dual enrollment articulation agreements → *outside of the bell schedule or within the normal school time?*
- Administrative
  - Have a specific person at Pierce who facilitates. Oversees articulation with high school. HS has coordinator who can connect to College-representative
    - Pierce College has a dedicated person → *Michael Williams*

#### **Name at least one thing that would attract high school students to enroll in and complete the Biotech certificates.**

- Joint project
  - Partner with a HS teacher/ HS team on a Biotech-related project to be done in the classroom
  - Biotech student – HS student mentor/ work on a project
- Talk/ presentation
  - Near-peer presentation  
A figure that the HS students can relate – young scientist, alumni, current Pierce student
  - Application of Biotech
  - Career possibilities
- Workshop
- Field trip to the lab at the college
- Industry connection

#### **Do you have any other comments or suggestions for Pierce College Biotech Program?**

- Possible useful addition
  - Having a directory for contacts
- Advisory board with broad representation, such as this, is great
- In the past, Pierce has not been receptive to working with HS CTE pathway.

**Focus Group #2 – Community College Partners**

**What are the recruitment efforts that have been successful to attract high school students to your Biotech program or Biotech field?**

- Offering full-online “Intro to Biotech” course
- Great website emphasizing ties to industry
- Summer fair
- Recruit students already at the college – going into classroom
- Popcorn GMP workshop or other workshop
- Work with other programs → *veterans, EOP&S, Umoja, etc*
- Use Indeed.com → *need to explore this possibility*
- Invite HS students for college field trips

**Is there something that you wish Pierce College Biotech can do to increase or foster networking between colleges?**

- Collaborative certificates or allow transferability of course credit
- Regular meeting
- Updates on the meeting & program development

**Do you have any other comments or suggestions for Pierce College Biotech Program?**

No response

**Focus Group #3 – Industry Partners**

**Are there particular obstacles (technical or legal) that may hinder the effort to establish a student internship at a Biotech company?**

- The cost (time & efforts) to train is high for a limited potential output, particularly for short internships
  - Longer part-time internships (6 weeks) may be more appropriate
  - Limited availability of trainers
  - Everyone is on a strict deadline
- Potential Intellectual Property issue

**Is there something that you wish we can do to minimize this barrier (if any)?**

- Part-time instead of full time, but longer period
- Partnership – allowing mentors to guide students with short-term projects
- Longer internship, or have some sort of “pre-training” in key/ required skills at CC

**What do you value the most in an intern?**

- Curiosity & interest in the scientific question, willingness & ability to learn
- Excitement, proactive, & eagerness
- Honesty, reliable, good attention to detail

**What collaborative efforts/ projects/ activities would you like to see in the future?**

- Grade A gowning requirements
- Guidance with basic lab techniques
- How to think about science as it applies to industry